

**INTENSIVE ARCHAEOLOGICAL RESOURCES SURVEY OF THE PROPOSED
BULVERDE ROAD IMPROVEMENT PROJECT IN BEXAR COUNTY, TEXAS**

Prepared for

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ABSTRACT

On behalf of the City of San Antonio, SWCA Environmental Consultants (SWCA) conducted an intensive archaeological survey of the proposed Bulverde Road Improvement Project in northern Bexar County. The proposed project would widen the existing Bulverde Road from Evans Road to Loop 1604 from two lanes to seven, increasing the pavement width from 32 to 105 feet. Accordingly, the existing right-of-way (ROW) width would increase from 110 to 120 feet, adding 10 feet to the east of the roadway. The project area also includes five water quality basin (WQB) locations along the eastern side of Bulverde Road. Proposed subsurface impacts are not known at this time, but in general are not expected to exceed four feet, with deeper impacts at the WQBs of up to eight feet. Overall the area of potential effects (APE) is a linear project area approximately 2.97 miles long, 120 feet wide and encompassing 43.3 acres.

As the City of San Antonio is a political subdivision of the State of Texas, the client is fulfilling project regulatory requirements in compliance with the requirements of the Antiquities Code of Texas (Permit No. 5304), and the San Antonio Historic Preservation Office (HPO) per the City of San Antonio Historic Preservation and Design Section of the Unified Development Code (Article 6 35-630 to 35-634). All cultural resources located within the proposed area were identified and evaluated for their eligibility for designation as a State Archeological Landmark (SAL).

SWCA conducted a background review and an intensive archaeological survey of the 43.3-acre project area. The background review revealed that the northern half mile (17 percent) of the project area has been previously surveyed and that one previously recorded site, 41BX68, is located adjacent to the southern project area boundary. Thirty-one other previously recorded archaeological sites and nine archaeological surveys are recorded within a one-mile radius of project area.

SWCA archaeologists conducted field investigations within the proposed project area on June 24, 2009 and on July 31, 2009. The intensive surface inspection and excavation of 35 shovel tests identified one archaeological site, 41BX1821, within the boundary of WQB D. Site 41BX1821 is a prehistoric campsite that is completely surficial in nature with no temporally diagnostic implements, cultural features, or significant, intact, buried components noted. Overall, the site has little to no research value beyond locational data based on the deflated nature of the surface assemblage coupled with the paucity of artifacts in general, and of diagnostic artifacts, in particular. As such, the site is not recommended as an SAL.

The natural setting and disturbances within the proposed new ROW have reduced the potential for encountering cultural resources as impacts have altered the surface and subsurface setting and landscape. Based on the results of the survey-level investigations and the presence of upland and shallow soils over most of the project area, it is SWCA's opinion that construction of the proposed Bulverde Road improvements will have no adverse impacts on significant cultural resources. SWCA recommends no further archeological investigations.

INTRODUCTION

On behalf of the City of San Antonio (COSA), SWCA Environmental Consultants (SWCA) conducted an intensive archaeological survey of the proposed Bulverde Road Improvement Project in northern Bexar County. The proposed project will involve improvements along a 2.97-mile section of Bulverde Road from Evans Road to Loop 1604. As the City of San Antonio is a political subdivision of the State of Texas, the client is fulfilling project regulatory requirements in compliance with the requirements of the Antiquities Code of Texas (Permit No. 5304), and the San Antonio Historic Preservation Office (HPO) per the City of San Antonio Historic Preservation and Design Section of the Unified Development Code (Article 6 35-630 to 35-634).

The proposed project would widen the existing Bulverde Road from two lanes to seven, increasing the pavement width from 32 to 105 feet. Accordingly, the existing right-of-way (ROW) width would increase from 110 to 120 feet, adding 10 feet to the east of the roadway. The project area also includes five water quality basin (WQB) locations along the eastern side of Bulverde Road, which average 0.13 acres in size. The basins' sizes range from 0.17 to 0.07 acres. Proposed subsurface impacts are not known at this time, but in general are not expected to exceed four feet, with deeper impacts at the WQBs of up to eight feet. Overall the area of potential effects (APE) is a linear project area approximately 2.97 miles long, 120 feet wide and encompassing 43.3 acres.

As the City of San Antonio is a political subdivision of the State of Texas, the client is fulfilling project regulatory requirements in compliance with the requirements of the Antiquities Code of Texas (Permit No. 5304), and the San Antonio Historic Preservation Office (HPO) per the City of San Antonio

Historic Preservation and Design Section of the Unified Development Code (Article 6 35-630 to 35-634).

The archaeological investigations included a 100 percent intensive archaeological survey of the project area. The goal of the work was to locate all prehistoric and historic archaeological sites in the project area, establish vertical and horizontal site boundaries as appropriate, and provide sufficient information for significance recommendations. All work was done in accordance with the standards and guidelines of the Texas Historical Commission (THC) and the Council of Texas Archaeologists (CTA).

PROJECT AREA DESCRIPTION

The project area is located along Bulverde Road in far north-central San Antonio, Texas (Figure 1). The project area is 2.97 miles in length with Evans Road as the northern boundary and Loop 1604 as the southern boundary. The project area includes the existing 110-foot Bulverde Road ROW and an additional 10 feet of ROW along the eastern edge of Bulverde Road. The project area also includes 0.66 acres divided among five WQBs along the east side of Bulverde Road.

Multiple commercial and residential buildings are intermittently located to the east and west sides of Bulverde Road adjacent to the APE. In particular, within the proposed new ROW, approximately 2,780 feet (850 meters [m]) of the northern extent contains recent commercial and residential construction (Figures 2 and 3). Additionally, a residential subdivision with a stone boundary fence borders the west side for a distance of 1,310 feet (400 m; Figure 4).

The project area traverses a long, north-south oriented upland ridge that forms a divide

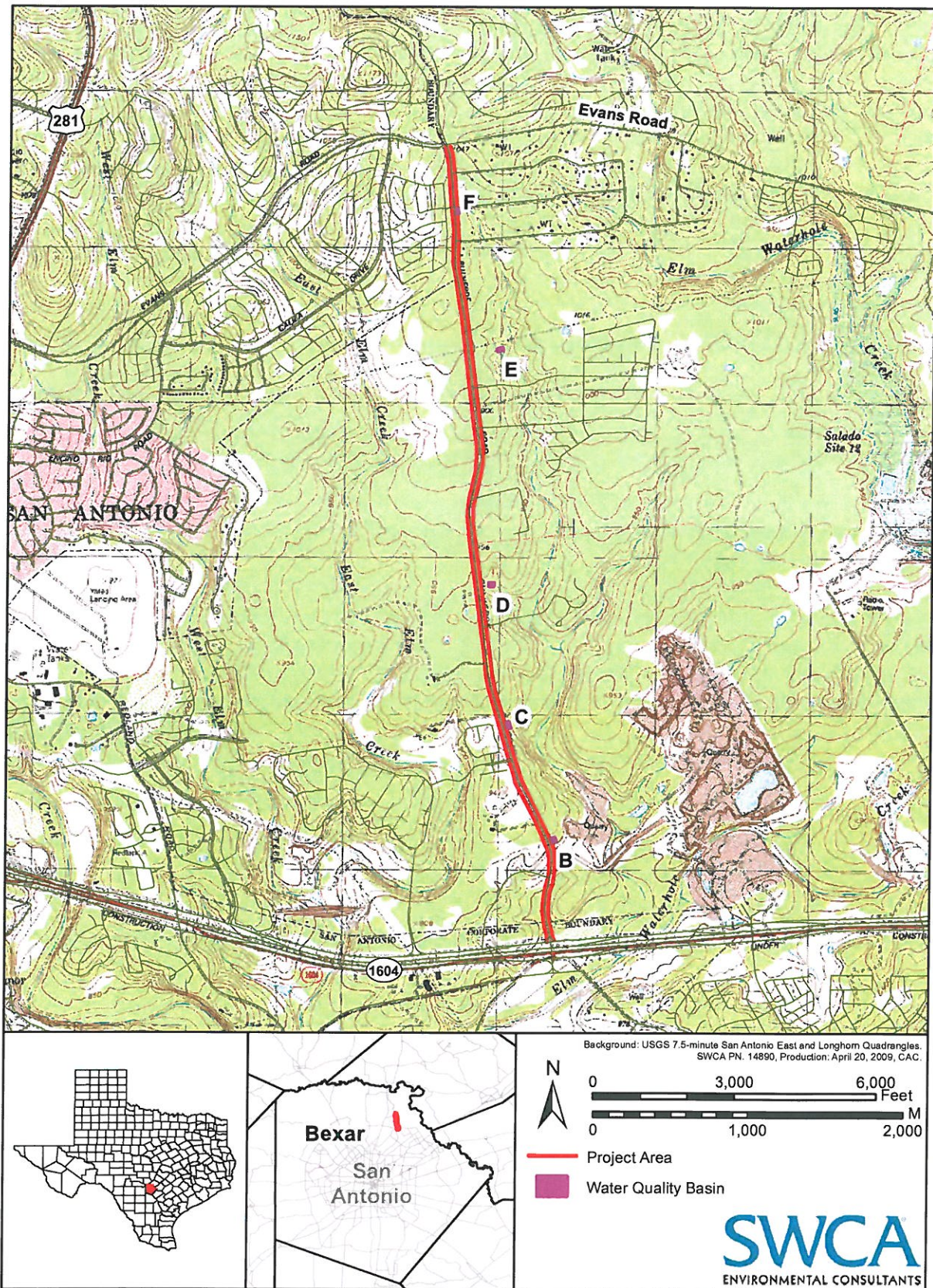


Figure 1. Project Location Map.



Figure 2. East side ROW near the northern terminus of the APE with adjacent commercial development and buried and overhead utilities, facing north.



Figure 3. Typical east side ROW with buried and overhead utilities near ST 16 and WQB E, facing north.



Figure 4. East side ROW north of Emerald Ridge Dr. and near WQB C, facing south.

between East Elm Creek to the west and an unnamed tributary of Elm Creek to the east. The project area is mainly vegetated with manicured grasses in the ROW with trees and shrubs along the western fence line in undeveloped areas. Prior disturbances consist of the construction of Bulverde and Evans Roads and Loop 1604, and several additional roads that bisect Bulverde Road. Aerial photographs indicate the surrounding area has been moderately impacted by commercial and residential development (Figure 5). The project area is located on portions of the Bulverde and Longhorn, Texas, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps.

ENVIRONMENTAL SETTING

GEOLOGY

The underlying geology of the entire project area is mapped as Cretaceous-age Limestone (Barnes 1983). These deposits are made up of predominately fine to coarse grained chert, 300 to 500 feet thick (Barnes 1983).

SOILS

The soils within the project area are mapped as predominately Crawford and Bexar stony soils (90%) with Tarrant association (10%), gently undulating, 1 to 5 percent slopes, occurring in the northernmost and southernmost portions of the project area (Taylor et al. 1991). The Crawford and Bexar soils are shallow to moderately deep, dark gray or reddish brown stony clays on top of hard limestone. Tarrant soils are dark colored, very shallow, calcareous and clayey. These soils develop over hard limestone with stones, gravels, channery fragments, cobblestones and flagstones on the surface and within the surface layer (Taylor et al. 1991). Both the Crawford and Bexar soils are typically located on nearly level or gently sloping uplands.

Hence, artifacts in these areas would likely be surficial or located within shallow depositional contexts.

VEGETATION

The project area is along the southern margin of the Balconian biotic province (Blair 1950). This province has highly variable vegetation of the Edwards Plateau and Hill country (Spearing 1991:24). Typical vegetation of the Edwards Plateau region consists of Texas oak (*Quercus texana*), live oak (*Quercus virginiana*), Ashe Juniper (*Juniperus ashei*), mesquite (*Prosopis glandulosa*), some bald cypress (*Taxodium distichum*), and grass prairies (Blair 1950; Simpson 1988; Spearing 1991). As noted above, the general vegetation of the 43.3 acres is mainly manicured grass along the ROW with trees and shrubs along fence lines of the undeveloped areas.

CULTURAL SETTING

The proposed project area falls within Central Texas Archeological Region (Pertulla 2004). Although the archaeological regions are not absolute, they do generally reflect recognized biotic communities and physiographic areas in Texas (Pertulla 2004:6). The Central Texas Region, as its name implies, is in the center of Texas and covers the Edwards Plateau and portions of the Blackland prairie east of the Edwards Plateau. The following synopses provide basic culture histories of the Central Texas region.

The archaeological record of the Central Texas region is known from decades of investigations of stratified open air sites and rockshelters throughout the Edwards Plateau, its highly dissected eastern and southern margins, and the adjoining margins of physiographic regions to the east and south (see Collins [2004] for review). Traditionally,

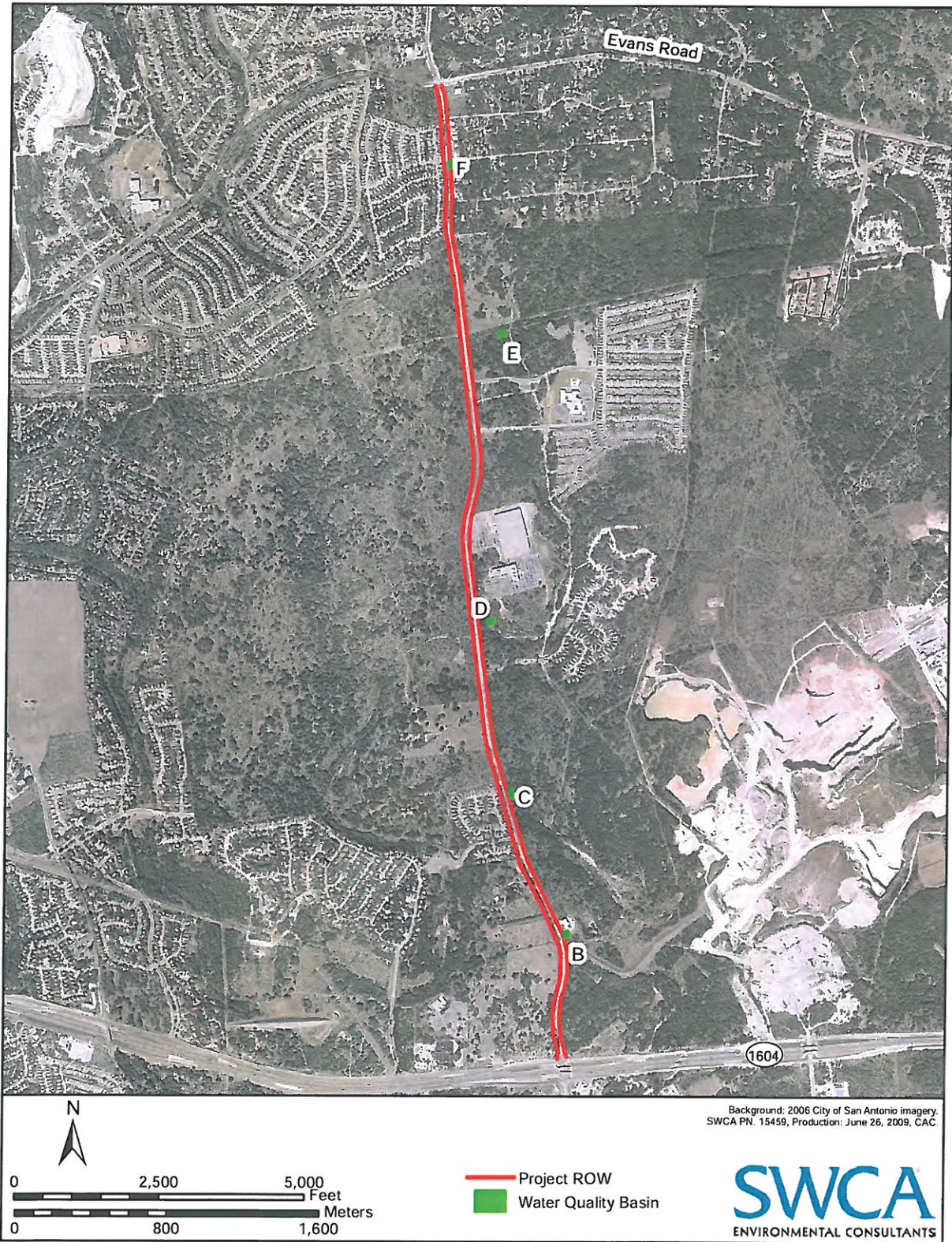


Figure 5. Aerial of Project Area.

the Central Texas archaeological area has included the Balcones Canyonlands and Blackland Prairie—that is, north of San Antonio (e.g., Prewitt 1981; Suhm 1960). These two areas are on the periphery of the Central Texas archaeological area, and their archaeological records and projectile point style sequences contain elements that suggest influences from and varying degrees of contact over time with other areas such as the Lower Pecos and Gulf Coastal Plain (Collins 2004; Johnson and Goode 1994). For more complete bibliographies concerning archaeological work done in the region, see Black (1989), Collins (1995), and Johnson and Goode (1994).

PALEOINDIAN PERIOD

Surficial and deeply buried sites, rockshelter sites, and isolated artifacts represent Paleoindian (11,500–8,800 B.P.) occupations of the Central Texas region (Collins 2004:116). The period is often described as having been characterized by small but highly mobile bands of foragers who were specialized hunters of Pleistocene megafauna. But Paleoindians probably used a much wider array of resources (Meltzer and Bever 1995:59), including small fauna and plant foods. Faunal remains from Kincaid Rockshelter and the Wilson-Leonard site (41WM235) support this view (Bousman 1998; Collins 1998; Collins et al. 1989). Longstanding ideas about Paleoindian technologies also are being challenged.

Collins (2004) divides the Paleoindian period into early and late subperiods. Two projectile point styles, Clovis and Folsom, are included in the early subperiod. Clovis chipped stone artifact assemblages, including the diagnostic fluted lanceolate Clovis point, were produced by bifacial, flake, and prismatic-blade techniques on high-quality and oftentimes exotic lithic materials (Collins 1990). Along with chipped stone artifacts, Clovis

assemblages include engraved stones, bone and ivory points, stone bolas, and ochre (Collins 2004:116; Collins et al. 1992). Clovis points are found evenly distributed along the eastern edge of the Edwards Plateau, where the presence of springs and outcrops of chert-bearing limestone are common (Meltzer and Bever 1995:58). Sites within the area yielding Clovis points and Clovis-age materials include Kincaid Rockshelter (Collins et al. 1989), Pavo Real (Henderson and Goode 1991), and San Marcos Springs (Takac 1991). A probable Clovis polyhedral blade core and blade fragment was found at the Greenbelt site in San Antonio (Houk et al. 1997). Analyses of Clovis artifacts and site types suggest that Clovis peoples were well-adapted, generalized hunter-gatherers with the technology to hunt larger game but not solely rely on it.

In contrast, Folsom tool kits—consisting of fluted Folsom points, thin unfluted (Midland) points, large thin bifaces, and end scrapers—are more indicative of specialized hunting, particularly of bison (Collins 2004:117). Folsom points have been recovered from Kincaid Rockshelter (Collins et al. 1989) and Pavo Real (Henderson and Goode 1991).

Postdating Clovis and Folsom points in the archaeological record are a series of dart point styles (primarily unfluted lanceolate darts) for which the temporal, technological, or cultural significance is unclear. Often, the Plainview type name is assigned these dart points, but Collins (2004:117) has noted that many of these points typed as Plainview do not resemble Plainview type-site points in thinness and flaking technology. Nonetheless, it has become clear that the artifact and feature assemblages of the later Paleoindian subperiod appear to be Archaic-like in nature and in many ways may represent a transition between the early Paleoindian and succeeding Archaic periods (Collins 2004:118).

ARCHAIC PERIOD

The Archaic period for Central Texas dates from ca. 8,800 to 1,300–1,200 B.P. (Collins 2004:119–121) and generally is believed to represent a shift toward hunting and gathering of a wider array of animal and plant resources and a decrease in group mobility (Willey and Phillips 1958:107–108). In the eastern and southwestern United States and on the Great Plains, development of horticultural-based, semisedentary to sedentary societies succeeds the Archaic period. In these areas, the Archaic truly represents a developmental stage of adaptation as Willey and Phillips (1958) define it. For Central Texas, this notion of the Archaic is somewhat problematic. An increasing amount of evidence suggests that Archaic-like adaptations were in place before the Archaic (see Collins 2004:118, 1998; Collins et al. 1989) and that these practices continued into the succeeding Late Prehistoric period (Collins 1995:385; Prewitt 1981:74). In a real sense, the Archaic period of Central Texas region is not a developmental stage, but an arbitrary chronological construct and projectile point style sequence. Establishment of this sequence is based on several decades of archaeological investigations at stratified Archaic sites along the eastern and southern margins of the Edwards Plateau. Collins (1995, 2004) and Johnson and Goode (1994) have divided this sequence into three parts—early, middle, and late—based on perceived (though not fully agreed upon by all scholars) technological, environmental, and adaptive changes.

The use of rock and earth ovens (and the formation of burned rock middens) for processing and cooking plant foods suggests that this technology was part of a generalized foraging strategy. The amount of energy involved in collecting plants, constructing hot rock cooking appliances, and gathering fuel ranks most plant foods relatively low based on the resulting caloric return (Dering 1999).

This suggests that plant foods were part of a broad-based diet (Kibler and Scott 2000:134) or part of a generalized foraging strategy, an idea Prewitt (1981) put forth earlier. At times during the Late Archaic, this generalized foraging strategy appears to have been marked by shifts to a specialized economy focused on bison hunting (Kibler and Scott 2000:125–137). Castroville, Montell, and Marcos dart points are elements of tool kits often associated with bison hunting (Collins 1968). Archaeological evidence of this association is seen at Bonfire Shelter in Val Verde County (Dibble and Lorrain 1968), Jonas Terrace (Johnson 1995), Oblate Rockshelter (Johnson et al. 1962:116), John Ischy (Sorrow 1969), and Panther Springs Creek (Black and McGraw 1985).

LATE PREHISTORIC PERIOD

Introduction of the bow and arrow and, later, ceramics into Central Texas marked the Late Prehistoric period. Population densities dropped considerably from their Late Archaic peak (Prewitt 1985:217). Subsistence strategies did not differ greatly from the preceding period, although bison again became an important economic resource during the late part of the Late Prehistoric period (Prewitt 1981:74). Use of rock and earth ovens for plant food processing and the subsequent development of burned rock middens continued throughout the Late Prehistoric period (Black et al. 1997; Kleinbach et al. 1995:795). Horticulture came into play very late in the region but was of minor importance to overall subsistence strategies (Collins 2004:122).

In Central Texas, the Late Prehistoric period generally is associated with the Austin and Toyah phases (Jelks 1962; Prewitt 1981:82–84). Austin and Toyah phase horizon markers, Scallorn-Edwards and Perdiz arrow points, respectively, are distributed across most of the state. Violence and conflict often marked

introduction of Scallorn and Edwards arrow points into Central Texas—many excavated burials contain these point tips in contexts indicating they were the cause of death (Prewitt 1981:83). Subsistence strategies and technologies (other than arrow points) did not change much from the preceding Late Archaic period. Prewitt's (1981) use of the term "Neoarchaic" recognizes this continuity. In fact, Johnson and Goode (1994:39–40) and Collins (2004:122) state that the break between the Austin and Toyah phases could easily and appropriately represent the break between the Late Archaic and the Late Prehistoric.

HISTORIC PERIOD

The historic period in Texas begins in 1528 near Galveston Island with the encounter between the Pánfilo de Narváez expedition and a Karankawa group. After disaster befell the expedition, one of the members, Cabeza de Vaca, spent six years of wandering through Texas in the 1530's (Chipman 1992). Based in part from his exploits and suggestions of a kingdom of gold, the Coronado expedition was formed to search for a "northern" Cuzco or Teotihuacan, and by 1540 it crossed into New Mexico, and into Texas (Fehrenbach 1985). The following historic discussion focuses on the San Antonio region and the significance of this region during the historic period and the creation of Texas independence, sovereignty and statehood.

EARLY HISTORIC TO 1718

The San Antonio area was first explored in 1691 by the Governor of the Spanish Province of Texas, Domingo Terán de los Ríos, and Father Damián Massenet. The pair traveled to San Pedro Springs where they encountered a hunter-gather tribe named Payaya. In their village named Yanaguana, the Payaya lived in simple huts made of brushwood and grass. The abundant berries, nuts and fish made San

Pedro Springs an attractive place to camp and/or live (Johnston 1947; Ramsdell 1968). The river and village were renamed after San Antonio de Padua by Terán and Massenet (Johnston 1947). Further Spanish exploration was conducted in 1709 by Father Antonio de San Buenaventura y Olivares. Father Olivares was the first to express interest in setting up a mission in the San Antonio area (Fehrenbach 2008; Johnston 1947).

The beginning of the late seventeenth and early eighteenth centuries was an era of more-permanent contact between Europeans and Native Americans as the Spanish moved northward out of Mexico to establish settlements and missions on their northern frontier (see Castañeda [1976] and Bolton [1970] for extended discussions of the mission system and Indian relations in Texas and the San Antonio area). There is little available information on aboriginal groups and their ways of life except for the fragmentary data Spanish missionaries gathered. In the San Antonio area and areas to the south, these groups have been referred to collectively as Coahuiltecan because of an assumed similarity in way of life, but many individual groups may have existed (Campbell 1988).

SPANISH TEXAS: 1718 TO 1820

San Antonio de Béxar Presidio, located on the east bank of the San Antonio River, was founded in 1718. In the same year, Mission San Antonio de Valero, later known as the Alamo, was transferred from the Rio Grande by Father Olivares. This mission was named after St. Anthony of Padua and the Marquis de Valero, the Viceroy of New Spain. The church was originally constructed of adobe and the huts of wood and thatch (Johnston 1947; Schoelwer 2008). Establishment of the mission system in the first half of the eighteenth century to its ultimate demise around 1800 brought the peaceful movement of some indigenous groups into mission life,

but others were forced in or moved in to escape the increasing hostilities of southward-moving Apaches and Comanches. Many of the Payaya and Juanca lived at Mission San Antonio de Valero (the Alamo), but so many died there that their numbers declined rapidly (Campbell 1988:106, 121–123).

La Villita, an Indian village about 1,500 feet south of the Alamo, was built around 1722 (Johnston 1947:31). The villa of San Fernando de Béxar was founded in 1731 by the Canary Islanders. Under the leadership of Juan Leal Goraz, the village of San Fernando de Béxar was founded near the Presidio de Béxar and the first civil government in Texas was formed (Butterfield 1968; Ramsdell 1968). In 1773, San Antonio de Béxar became the capital of Spanish Texas. By 1790, most of the Indians living in San Antonio had either already abandoned the missions or died from diseases like smallpox and the measles brought in by Europeans. Mission San Antonio de Valero was secularized in 1794 and mission land, excluding the church and convent, was divided amongst the few Indians that remained in the area (Johnston 1947).

TEXAS REVOLUTION, INDEPENDENCE AND STATEHOOD: 1820 TO 1848

During the Texas Revolution, San Antonio was the site of several battles, including the siege of Bexar and the battle of the Alamo (Fehrenbach 2008). On February 23, 1836, nearly 150 American volunteers took refuge from the approaching Mexican Army in the Alamo Mission (Hatch 1999). A standoff between the Texian Revolutionary Army and the Mexican Army, lasting 13 days, ended in complete annihilation of the Alamo defenders and a victory for the Mexican General Antonio Lopez de Santa Anna (Huffines 1999). Santa Anna won the battle at the Alamo but victory and independence was won by the Texans two weeks later in the Battle of San Jacinto (Hatch 1999; Huffines 1999).

After Mexican forces were removed from San Antonio in December of 1836, the Republic of Texas began organizing Bexar County. The next month, San Antonio was chartered as the county seat (Fehrenbach 2008).

1848 TO 1900

After Texas entered the Union in 1845, San Antonio's already diverse population grew dramatically. The Irish came to Texas in the late 1830s to early 1840s and established "Irish Flat." Germans settled in San Antonio in the 1850's introducing the "Bier Halle" (Butterfield 1968: 21) to the area. French immigrants added artists and artisans to the culture of the city. Later immigrants to the area included Polish, Italians, Greeks, Syrians and in 1910 Chinese, all of which formed small communities within the city of San Antonio. On March 2, 1861 Texas seceded from the Union and soon after the Civil War began. San Antonio was a Confederate storage area as well as a location to form military units; however, the city kept its distance from most of the fighting (Fehrenbach 2008). After the Civil War, industries such as cattle, distribution, ranching, mercantile, gas and oil, and military centers in San Antonio prospered. The arrival of a railway transportation system in San Antonio in 1877 inspired economic growth throughout the city (Fehrenbach 2008; House 1949). Civic government, utilities, electric lights and street railways, street paving and maintenance, water supply, telephones, hospitals, and a power plant were all established or planned during the latter decades of the nineteenth century (Butterfield 1968; Fehrenbach 2008).

1900 TO 1950

In 1921, a disastrous flood engulfed Houston and St. Mary's Street with approximately 9 feet of water. The Olmos Dam was built in response to this event to prevent further flooding, as well as the straightening and

widening of sections of the San Antonio River. The resulting Riverwalk, also known as the Paseo del Rio, with shops and restaurants was completed in 1941 (House 1949; Long 2008). As the US entered into WWII, San Antonio became an important military center and other city activities and construction ceased for nearly five years. Fort Sam Houston, Kelly, Randolph, Brooks and Lackland Air Force bases became active military training centers (Heusinger 1951). The San Antonio Missions National Historical Park includes The Alamo (1718), Mission Concepción (1731), Mission San José (1720), Mission San Juan Capistrano (1731), and Mission San Francisco de la Espada (1741) and forms a cornerstone for San Antonio's tourism industry.

METHODS

ARCHIVAL RESEARCH AND BACKGROUND REVIEW

SWCA conducted a thorough archaeological background review of the project area. A SWCA archaeologist searched site files and maps at the Texas Archeological Research Laboratory (TARL) and the THC's Texas Archeological Sites Atlas (Atlas), an online database, for any previously recorded surveys and historic or prehistoric archaeological sites located in or adjacent to the project area. In addition to identifying previously recorded archaeological sites, the Atlas review included the following types of information: NRHP properties, SALs, Official Texas Historical Markers, Registered Texas Historic Land Marks, cemeteries, and local neighborhood surveys.

ARCHAEOLOGICAL FIELD METHODS

SWCA's investigations consisted of an intensive pedestrian survey with subsurface investigations within the project area.

Archaeologists examined the ground surface and extensive bedrock exposures for cultural resources. Subsurface investigations involved shovel testing in settings with the potential to contain buried cultural materials. The systematic shovel tests were approximately 30 centimeters (cm) in diameter and excavated to culturally sterile deposits or impassible gravel, whichever came first. The matrix from each shovel test was screened through ¼-inch mesh, and the location of each excavation was plotted using a hand-held GPS receiver. Each shovel test was recorded on a standardized form to document the excavations.

When sites are encountered, a minimum of six shovel tests per site is recommended. A State of Texas Archaeological Site Data Form was completed for each site discovered during the investigations. A detailed plan map of each site was produced with excavation locations plotted on USGS 7.5-minute topographic maps.

ARTIFACT COLLECTION

SWCA conducted a non-collection survey. Artifacts were tabulated, analyzed, and documented in the field, but not collected. Temporally diagnostic artifacts were to be described in detail and photographed in the field. In this case, no temporally diagnostic artifacts were encountered within the project area and, as such, the non-collection policy was not a factor.

RESULTS

PREVIOUS INVESTIGATIONS

The background review revealed that the northern half mile (17 percent) of the project area has been previously surveyed and one previously recorded site, 41BX68, is located adjacent to the southern project area boundary. Thirty-one previously recorded archaeological

sites and nine archeological surveys are recorded within a one-mile radius of the project area.

The northern portion of the project area (approximately 0.56 miles) was surveyed in 1977 during the Encino Park Development survey (McGraw et al. 1977). This survey began at Evans Road and continued along Bulverde Road and turned to the southwest just south of Menger Road. No cultural resources were recorded within the current project area; however, the survey encountered numerous sites within the surrounding uplands. Eight of these sites are within a one-mile radius of the APE and consist of prehistoric lithic scatters, lithic quarries, and burned rock middens.

A survey of FM 1604 was performed in 1971 on behalf of the Texas Department of Highways and Public Transportation (TDHPT), during which site 41BX68 was recorded. This site is an Archaic-era quarry and lithic workshop located on the west side of Bulverde Road at its intersection with Loop 1604. Archaeologists from the University of Texas at San Antonio Center for Archaeological Research (UTSA-CAR) revisited site 41BX68 in 2007 during a survey of Loop 1604 and determined the site to be heavily disturbed by road construction and partially covered in cement berms (Thompson et al. 2008). Five shovel tests excavated around the site located only one piece of debitage below ground surface and each shovel test contained road base fill. Due to these circumstances, site 41BX68 was not recommended for further work within the Loop 1604 ROW (Thompson et al. 2008). In addition to site 41BX68, two other sites recorded during this survey are within a one-mile radius of the APE.

A 63-acre survey was conducted for the Tuscan Ridge Project in 2006 by SWCA

archaeologists. This survey was conducted adjacent to the southern portion of the project area on the west side of Bulverde Road and north of site 41BX68. No cultural resources were recorded during these investigations (Bonine 2006).

In addition to site 41BX68, 31 sites have been recorded within one mile of the project area. Six were recorded by Archaeological Stewards and two others were recorded during an SWCA survey of Bulverde Marketplace (Galindo 2009). One additional site was recorded during each of the following projects: 1974 Salado Creek survey, 1990 New Middle School Project survey, 2002 Government Canyon Development Project survey, and 2005 FCS Fischer MDP Project survey (Atlas).

RESULTS OF INVESTIGATION

On June 24, and July 31, 2009, an intensive pedestrian and subsurface archaeological survey was conducted by SWCA archaeologists along the proposed 2.97-mile project area. The survey examined the existing ROW of Bulverde Road and the proposed new ROW where right of entry (ROE) had been granted as of June 24, 2009. The APE is mainly level to gently-sloping southward and traverses a long, north-south oriented upland ridge that forms a divide between two drainages, which eventually form a confluence southwest of the APE.

The majority of the APE has been previously cleared of vegetation and previously disturbed by the original construction of Bulverde Road, Loop 1604, and several residential roads that bisect Bulverde Road. Additionally, much of the proposed new ROW cuts through residential and commercial developments, while other parts are ranch land.

The existing ROW, east of Bulverde Road, was surveyed and deemed unnecessary for shovel testing based on the extensive prior disturbances from road and ditch construction. Disturbances within this area include road and culvert construction and maintenance and the installation of buried gas and water lines (Figure 6).

Overall, 41 shovel tests were excavated within the existing and proposed new ROW, along Bulverde Road (Figures 7a and 7b; Table 1). THC's survey standards for projects of this size recommend sixteen shovel tests per linear mile, or, in this case 48 shovel tests. Thus, the survey deviated from the standards based on the presence of shallow upland soils over 90% of the APE, on the availability of subsurface exposures, and on the observed prior disturbances mentioned above.

The shovel tests were terminated at depths of 5–35 centimeters below surface (cmbs) due to the presence of hardpan clay or impenetrable gravel. Soils consisted of friable to blocky clay or silty clay loams atop dense clay or gravel. Surface visibility of the APE was typically very good (ca. 90–100%) save for the southernmost portion of the project area which was generally obscured by thick overgrowth adjacent to the fence line along Bulverde Road.

Shovel tests (STs) 1–2 were placed at the northern segment of the project boundary, just south of Evans Road on top of a slight rise (Figure 8). This area appeared to be heavily disturbed by road construction and utility installation with modern trash and construction debris littering the area. On the flat of the rise, areas of soil deposition were segmented by areas of exposed limestone bedrock.

Traveling south along the APE, STs 3–8 were placed within the maintained ROW adjacent

to a residential fence line (Figure 9). Here, the APE has been previously disturbed by utility installation, fence line construction and yard modification. All shovel tests were negative for cultural resources in this stretch.

STs 11–17 were positioned along the fence line of the existing ROW (Figure 10). Testing east of the existing fence line was not possible due to lack of ROE, but the 10-foot-wide proposed new ROW was visually assessed by SWCA archaeologists from the fence line. This segment is characterized by intermittent exposed bedrock with noticeable amounts of natural chert gravels and cobbles, none of which were observed to be intentionally modified in any way. In contrast with the residential area just north of ST 11, this area along Bulverde Road is ranch and grazing land for cattle. STs 18–35 and 37 were placed further south along similar terrain with the notable decline in frequency of chert cobbles and gravels and an increase in road gravels. All shovel tests were negative for cultural resources in this segment.

South of ST 34 is an existing residential development for a distance of 1,804 feet (550 m; see Figure 4). Due to the constrained and disturbed nature of the project area between the western edge of Bulverde Road and the residential brick wall, shovel testing was deemed unnecessary. Beyond this residential area, for a distance of 4,265 feet (1,300 m), the area within the proposed new ROW is characterized by thick shrub overgrowth adjacent to the fence line. South of this location bedrock was visible at the surface and shovel testing was deemed unnecessary.

ST 36 was placed approximately 200 m north of the southern boundary of the APE near the recorded location of site 41BX68. From this location to the project's southern terminus at Loop 1604, much of the current APE has been previously disturbed by construction and



Figure 6. Buried gas and water lines within the east side ROW, facing east.

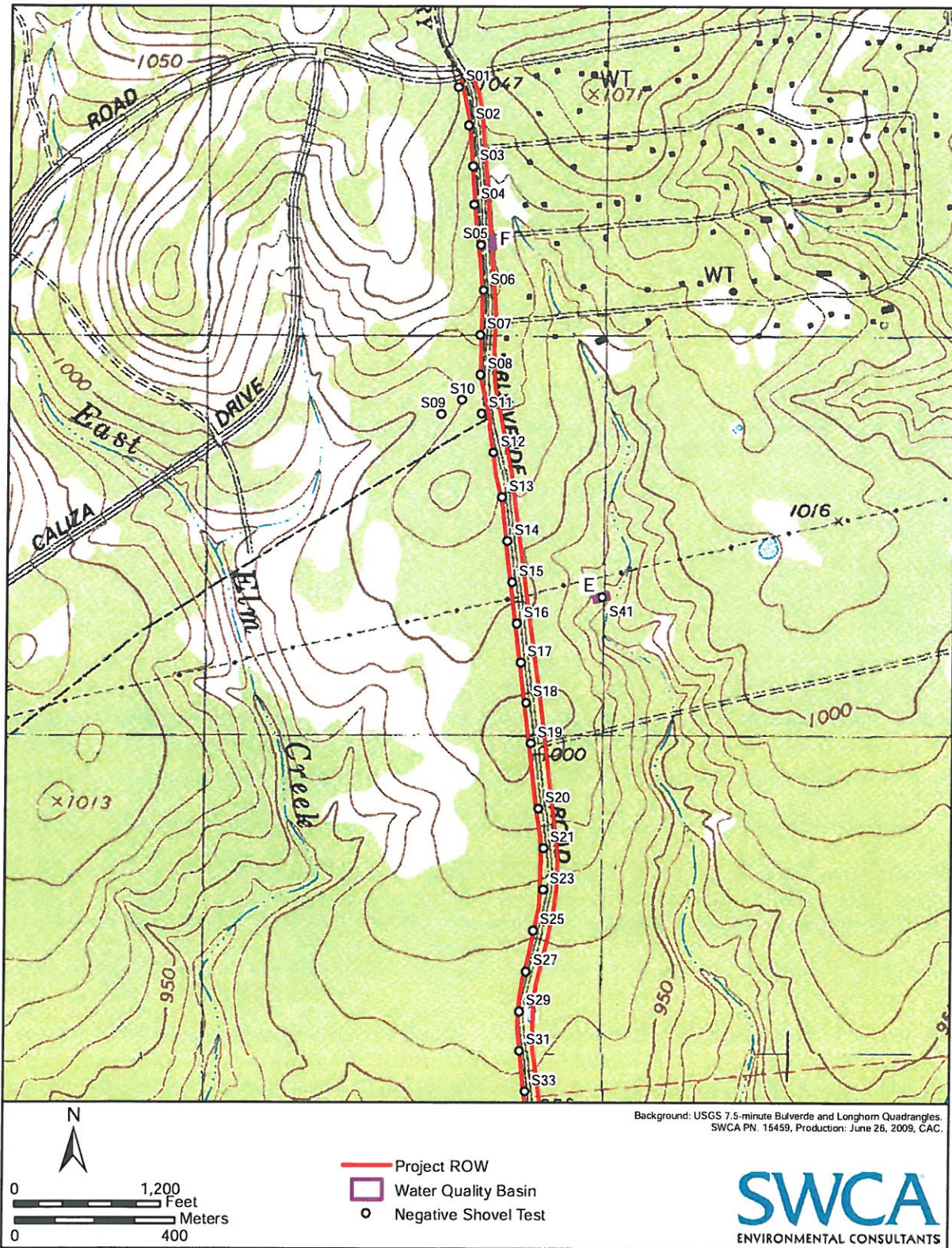


Figure 7a. Shovel Test Location Map, Northern Survey Area.

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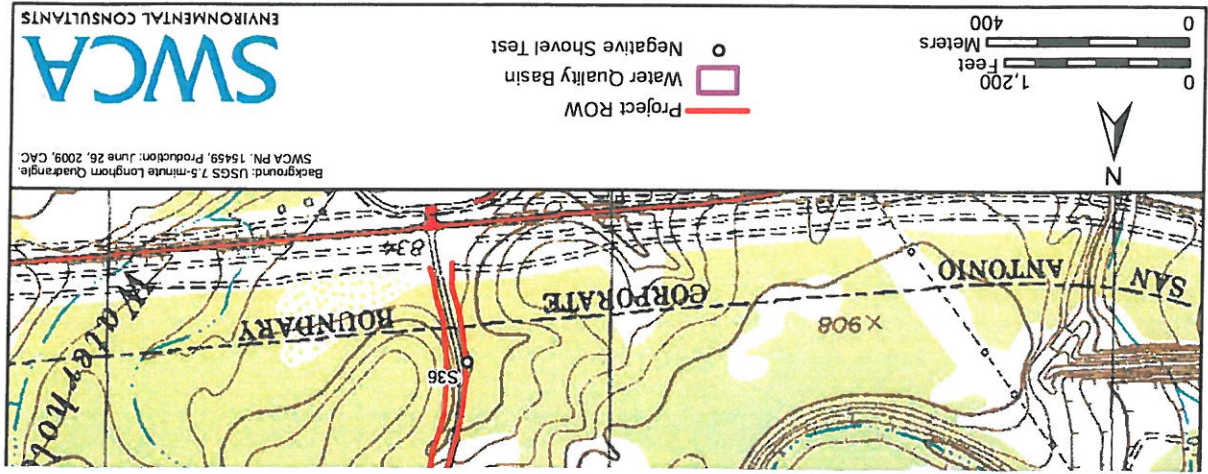


Figure 7b. Shovel Test Location Map, Southern Survey Area.

Table 1. Shovel Test Data

Shovel Test #	Site #	P=Pos N=Neg	Depth (cms)	Munsell	Soil Color	Soil Texture Description	Inclusions	Comments
1	-	N	0-10	10YR3/4	dark yellowish brown	sandy loam	none	on rise within north end of ROW; previously disturbed by utility installation; terminated at bedrock
2	-	N	0-30	10YR4/3	brown	clay	none	tall ROW grasses and shrubs
3	-	N	0-20	10YR3/4	dark yellowish brown	silty clay loam	none	exposed bedrock in area
4	-	N	0-15	10YR4/3	brown	clay	caliche and gravel	maintained ROW at fence line
5	-	N	0-20	10YR3/4	dark yellowish brown	silty clay loam	none	exposed bedrock in area
6	-	N	0-10	10YR4/3	brown	silty clay	caliche and gravel	maintained ROW at fence line
7	-	N	0-20	10YR3/4	dark yellowish brown	silty clay loam	none	exposed bedrock in area
8	-	N	0-20	10YR4/4	dark yellowish brown	silty clay	caliche and gravel	maintained ROW at fence line
9	-	N	0-5	10YR4/4	dark yellowish brown	silty clay loam	none	exposed bedrock in area; in easement
10	-	N	0-5	10YR4/4	dark yellowish brown		none	along fence line
11	-	N	0-10	10YR4/4	dark yellowish brown	sandy clay loam	none	west of gate; in area of exposed bedrock; unmodified chert
12	-	N	0-7	10YR4/4	dark yellowish brown	sandy clay loam	none	chert cobbles exposed on surface
13	-	N	0-15	10YR4/3	brown	clay	none	maintained ROW grasses; limestone and chert cobbles and boulders exposed on surface
14	-	N	0-6	10YR3/3	dark brown	sandy clay loam	none	limestone and chert cobbles and boulders exposed on surface; modern glass bottle fragment at 4 cms
15	-	N	0-20	10YR4/3	brown	clay	gravel	maintained ROW grasses; cobbles and boulders exposed on surface; modern trash at 20 cms
16	-	N	0-5	10YR3/3	dark brown	sandy clay loam	none	limestone and chert cobbles and boulders exposed on surface; modern glass bottle cap encountered
17	-	N	0-5	10YR4/4	dark yellowish brown	silty clay	gravel	maintained ROW grasses; cobbles and boulders exposed on surface
18	-	N	0-10	10YR3/4	dark yellowish brown	sandy clay loam	none	exposed bedrock in area
19	-	N	0-30	10YR4/3	brown	clay	limestone and chert rocks	maintained ROW grasses; limestone and chert rocks exposed on surface
20	-	N	0-5	10YR7/4	very pale brown	silt	none	maintained ROW grasses at new intersection with Canyon Parkway; appears to be fill

Shovel Test #	Site #	P=Pos N=Neg	Depth (cms)	Munsell	Soil Color	Soil Texture Description	Inclusions	Comments
		-	N	5-15	10YR4/3	brown	clay	limestone and chert gravel
21		-	N	0-5	10YR4/3	brown	clay	limestone and chert gravel
22		-	N	0-10	10YR4/4	dark yellowish brown	sandy clay loam	terminated at hard, compact clay; no chert in area
23		-	N	0-20	10YR4/3	brown	clay	limestone and chert gravel
24		-	N	0-10	10YR4/4	dark yellowish brown	sandy clay loam	terminated at hard, compact clay; no chert in area
25		-	N	0-10	10YR4/3	brown	clay	limestone and chert gravel
26		-	N	0-10	10YR4/6	dark yellowish brown	sandy clay loam	terminated at hard, compact clay; no chert in area
27		-	N	0-15	10YR4/3	brown	clay	limestone and chert gravel
28		-	N	0-25	10YR3/3	dark brown	sandy loam	limestone and chert gravel
29		-	N	0-15	10YR4/3	brown	clay	10% gravel terminated at compact clay and gravel
30		-	N	0-20	10YR3/3	dark brown	sandy loam	limestone and chert gravel
31		-	N	0-15	10YR4/3	brown	clay	10% gravel terminated at compact clay and gravel
32		-	N	0-20	10YR3/3	dark brown	sandy loam	limestone and chert gravel
33		-	N	0-15	10YR4/3	brown	clay	10% gravel terminated at compact clay and gravel
34		-	N	0-25	10YR3/3	dark brown	sandy loam	limestone and chert gravel
35		-	N	0-15	10YR4/3	brown	clay	10% gravel terminated at bedrock
36	41BX68		N	0-15	10YR4/4	dark yellowish brown	clay	chert gravel terminated at compact marl
37		-	N	0-5	10YR4/3	brown	clay	10% gravel terminated at bedrock
38		-	N	0-10	10YR3/3	dark brown	silty clay	chert cobble throughout
39		-	N	0-15	10YR3/3	dark brown	silty clay	chert and limestone cobble throughout
								Basin B; tall and manicured grasses and cedar with chert cobble on the surface
								Basin C; Texas Persimmon, juniper, and prickly pear cactus

Shovel Test #	Site #	P=Pos N=Neg	Depth (cmts)	Munsell	Soil Color	Soil Texture Description	Inclusions	Comments
40	41BX1821	P	0-25	10YR3/3	dark brown	silty clay	chert and limestone cobbles throughout	Basin D: Texas Persimmon, Mesquite, Juniper, and prickly pear cactus; one tertiary flake at 10 cmts
41	-	N	0-35	10YR3/2	very dark grayish brown	silty clay	limestone and chert cobbles	Basin E: Texas Persimmon, Mesquite, prickly pear cactus



Figure 8. Overview of project area at Menger Dr., facing north.



Figure 9. East side ROW near ST 8, facing north.



Figure 10. Overview of the east side ROW with buried and overhead utilities near ST 16 and WQB E, facing south.

and an unnamed tributary to the east. WQB D measures 75 feet north-south and 100 feet east-west, containing 0.17 acres. The site likely extends beyond the confines of the survey area and is characterized by a surficial lithic scatter of flakes, cores, and large chert cobbles (Figure 14). No diagnostic materials or features were encountered. ST 40 was excavated within WQB D in an area sparsely vegetated with mesquite, juniper, and prickly pear, with large limestone and chert cobbles visible on the surface (Figures 15-17). ST 40 contained clay and chert and limestone cobbles throughout and terminated at 25 cmbs when an impenetrable layer of chert cobbles was encountered. One tertiary flake was observed in ST 40 at 10 cmbs.

ST 41 was excavated within WQB E in a location that was vegetated with juniper and prickly pear cactus (Figure 18). WQB E measures 50 feet north-south and 118 feet east-west, containing 0.14 acres. ST 35 contained clay and chert cobbles and terminated at 35 cmbs when a dense layer of chert cobbles was encountered. No cultural materials were visible on the surface at this location and none were encountered in ST 41.

WQB F is along a commercially developed stretch of Bulverde Road at its intersection with Ridgeway Drive. WQB F measures 100 feet north-south and 30 feet east-west, containing 0.07 acres. No shovel tests were excavated at this location based on the extent of prior disturbances from vegetation clearing, road construction, and the installation of buried and overhead utilities (Figure 19). No cultural materials were visible on the surface at this location.

The investigation of the 2.97-mile project area identified one newly recorded archaeological site, 41BX1821, whose boundary is the 0.17-acre WQB D. The assemblage at site

maintenance of both Bulverde Road and Loop 1604, as well as the installation of buried and overhead utilities (Figure 11). This area, for the entirety of the ROW to Loop 1604, was visually assessed to ascertain if the 41BX68 site boundary reached east into the APE. No evidence of site 41BX68 was observed on the surface of the APE or within ST 36.

In addition to the existing and proposed new ROW, five WQB locations line the east side of Bulverde Road. Labeled B through F, these WQBs were assessed for their potential to contain cultural materials or deep depositional soils, necessitating mechanical trenching (see Figure 5). WQB B is adjacent to San Antonio Fire Department Station No. 48 and includes areas of both manicured and tall grasses with juniper and prickly pear cactus (Figure 12). WQB B measures 73 feet north-south and 75 feet east-west, containing 0.13 acres. ST 38 was excavated at this location through clay and chert cobbles, and terminated at 10 cmbs when an impenetrable layer of chert cobbles was encountered. No cultural materials were visible on the surface at this location and none were encountered in ST 38.

ST 39 was excavated within WQB C in an area wooded with Texas persimmon and juniper with an under story of green briar. WQB C measures 130 feet north-south and 50 feet east-west, containing 0.15 acres. ST 39 contained clay and chert cobbles and terminated at 15 cmbs when bedrock was encountered. WQB C also included a previously cleared area of grass and prickly pear with bedrock and large cobbles visible on the surface (Figure 13). No cultural materials were visible on the surface at this location and none were encountered in ST 39.

One prehistoric site, 41BX1821, was documented within WQB D on a gently sloping upland ridge that forms a portion of the divide between East Elm Creek to the west



Figure 12. Overview of WQB B, facing southwest.



Figure 11. East side ROW near Loop 1604, facing south.

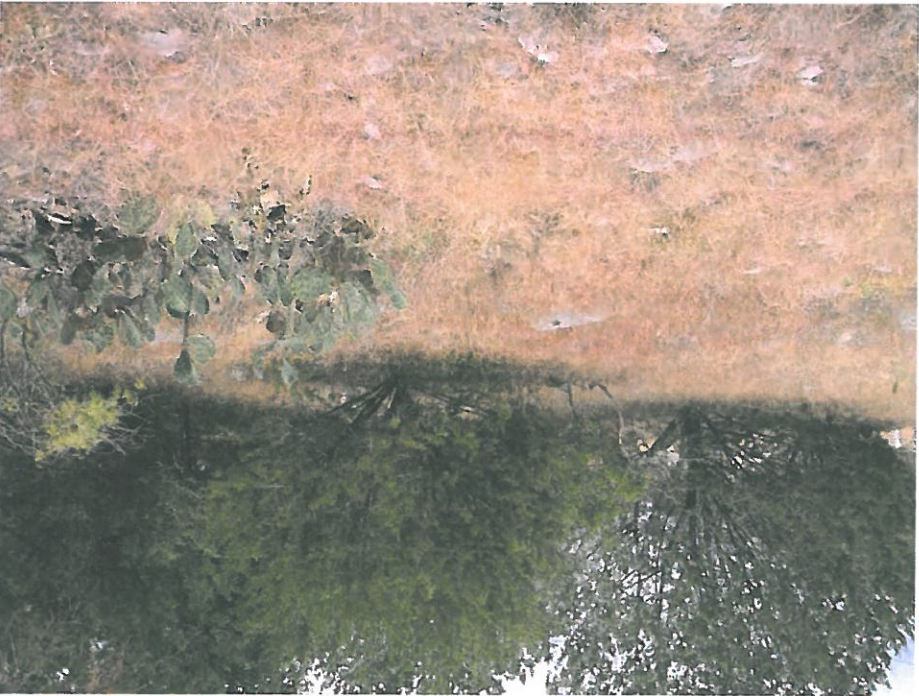


Figure 13. Overview of WQB C, facing west-northwest.



Figure 14. Overview of WQB D and site 41BX1821, facing south-southwest.

Figure 16. Representative artifacts observed at site 41BX1821 in WQB D.



Figure 15. Rocky surface of WQB D and site 41BX1821, facing west.



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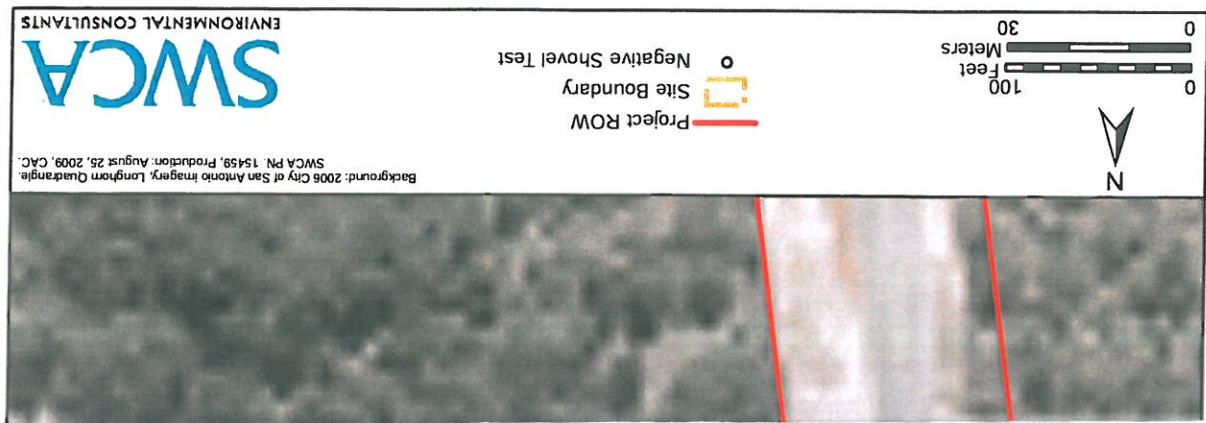


Figure 17. Site Map for 41BX1821.



Figure 18. Overview of WQB E, facing west.



Figure 19. Overview of WQB F, facing south.

characteristics that would qualify it for formal designation as an SAL. SWCA recommends no further work at this location.

The majority of the project area has been previously disturbed by road construction, maintenance, and the installation of utilities. Additionally, portions of the project area include extensive residential and commercial development. Soils within the project area are mapped as predominantly Crawford and Bexar stony soils (90%) with Tarrant association. The natural setting and disturbances within the existing and proposed new ROW have reduced the potential for encountering cultural resources as impacts have altered the surface and subsurface setting and landscape.

Based on these results, SWCA recommends no further archaeological investigations within the project area.

41BX1821 consists of 20–40 tested chert cobbles, early state reduction cores, primary and secondary flakes, and debitage. The site is completely surficial in nature, with no temporally diagnostic implements, cultural features, or significant, intact, buried components noted. Overall, the site has little to no research value beyond locational data based on the deflated nature of the surface assemblage coupled with the paucity of artifacts in general, and of diagnostic artifacts, in particular. As such, the site lacks the characteristics that would qualify it for formal designation as an SAL.

SUMMARY AND RECOMMENDATIONS

On behalf of COSA, SWCA conducted a cultural resources investigation of the 2.97-mile Bulverde Road Project located in northern San Antonio, Bexar County, Texas. Work was done to satisfy requirements of the Texas Antiquities Code under permit number 5304 and the San Antonio HPO per the City of San Antonio Historic Preservation and Design Section of the Unified Development Code (Article 6 35-630 to 35-634).

The background review revealed that the northern 0.56 miles of the project area had been previously surveyed in 1977 and that one previously recorded site, 41BX68, is located adjacent to the southern project area, although assessed as being west of the APE. Thirty-one previously recorded archaeological sites and nine surveys are recorded within a one-mile radius of the project area.

The intensive surface inspection and shovel testing regimen identified one newly recorded archaeological site, 41BX1821, within the boundary of WQB D. Site 41BX1821 is completely surficial in nature with no temporally diagnostic implements, cultural features, or significant, intact, buried components. As such, the site lacks the

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